DOCUMENT RESUME

ED 463 737 IR 021 156

AUTHOR Fender, David L.
TITLE Student and Faculty Issues in Distance Education.
PUB DATE 2001-04-09
NOTE 13p.; In: Proceedings of the Annual Mid-South Instructional Technology Conference (6th, Murfreesboro, TN, April 8-10, 2001); see IR 021 138.
AVAILABLE FROM For full text: http://www.mtsu.edu/~itconf/proceed01/4.pdf.
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Computer Uses in Education; *Distance Education; *Educational Technology; Graduate Study; Higher Education; Instructional Design; *Instructional Development; Occupational Safety and Health; Student Needs; Student Surveys; Teacher Surveys
IDENTIFIERS Course Development; *Technology Utilization

ABSTRACT

Occupational safety and health faculty and occupational safety and health professionals (i.e., the potential audience for graduate level distance education programs) were surveyed to determine the considerations for a distance education-based graduate occupational safety and health program. Findings are reported related to the demand for distance education, program attributes necessary for students, and faculty issues. Adequate time is the largest issue for potential students. Faculty need to be sufficiently trained in pedagogy, technology, and communications so that they have the same comfort level with this method of instruction as they do for the more familiar classroom. Additionally, technical and instructional support personnel need to be readily available to work with the faculty and support course development. Recommendations include: (1) institutions need to be clear in marketing about what is expected of students and what distance education is; (2) technology should never get in the way of instruction; (3) considering the needs of distance students must be a primary concern; (4) faculty should be encouraged to participate in delivering courses via means of distance education; and (5) further research needs to be focused on specific technologies and pedagogical issues in distance education in order to develop best practices for course delivery. (Contains 12 references.) (MES)

Reproductions supplied by EDRS are the best that can be made from the original document.

ED 463 737

# STUDENT AND FACULTY ISSUES IN DISTANCE EDUCATION

Mid-South Instructional Technology Conference

April 9, 2001

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

L. Lea

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)



U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

David L. Fender, Ed.D.
Murray State University
Lecturer, Department of Occupational Safety & Health
157 Industry & Technology Center
Murray, KY 42071-3347

Abstract

Occupational safety and health faculty and occupational safety and health professionals were surveyed to determine the considerations for a distance education-based graduate occupational safety and health program from the perspective of faculty and occupational safety and health professionals. Adequate time is the largest issue for potential students. Faculty need to be sufficiently trained in pedagogy, technology, and communications so that they have the same comfort level with this method of instruction as they do for the more familiar classroom. Additionally, technical and instructional support personnel need to be readily available to work with the faculty and support course development.

*Introduction*

Working professionals can find it difficult to pursue advanced degrees. This is particularly difficult for professionals working in relatively small fields such as occupational safety and health when only a small number of universities offer graduate programs. This makes it difficult for most safety professionals to pursue a graduate degree unless they are willing to terminate their employment and move to enroll in a traditional, classroom-based program. For many, this is too large of a sacrifice to make or may just not be possible.

Many educators are realizing that education can be conducted without having students sit in a conventional classroom and even without traditional lectures from professors. Performed properly, this concept of distance education might make it possible for safety and health professionals to continue work while pursuing a graduate degree. Thus, a distance education occupational safety and health graduate program would seem to be a good way to make education more widely available for working professionals.

This change from traditional classrooms to "virtual" classrooms will have a dramatic effect upon higher education and all who are connected with it (Connick 1997). Many

IR021156



BEST COPY AVAILABLE

institutions and individuals are developing and conducting courses delivered via various methods of distance education. If distance education is to be the most useful to students, the focus needs to shift from individual courses to offering complete degrees.

The purpose of this study was to determine (a) the need for graduate occupational safety and health programs, as indicated by occupational safety and health professionals, delivered by means of distance education; and (b) the best means to deliver the program from the perspective of faculty and adult students. The study sought to document the need for occupational safety and health graduate programs delivered through distance education, to identify the required resources and considerations, and to make recommendations to guide the development and delivery of such programs. This research was intended to provide insights for students, faculty, and administrators into the advantages and disadvantages of distance education graduate programs and areas of concern that must be addressed if such programs are to meet the needs of students and requirements of faculty.

*Procedures*

Two surveys were used. The Safety Professional Distance Education Survey was sent to 500 practicing safety professionals who had bachelor's degrees, the potential audience for graduate level distance education programs. The Faculty Distance Education Survey was sent to all 108 faculty members in the degree-granting graduate occupational safety and health management programs from the 17 colleges and universities offering graduate degrees.

The Faculty Distance Education Survey was designed to learn about attributes of faculty including demographics, how willing to change they were, their level of concern about distance education, their attitude toward distance education, and how comfortable they were with technology. The Safety Professional Distance Education Survey gathered demographic information about the respondents, their attitudes toward technology and distance education, and what attributes a distance education program will need in order to best meet the life style and needs of the students.

*Findings*

*Demand for distance education.* Research question 1 asked: "What is the demand for master's degree occupational safety and health programs to be delivered through distance education by occupational safety and health professionals in the United States with bachelor's degrees?"

A slim majority of respondents to the Safety Professional Distance Education Survey ($n$ = 87, 53.4%) agreed with the statement, "I would be interested in a distance education graduate program in occupational safety and health if a program was currently available." Forty respondents, or 24.5%, indicated that they would not be interested and 36 respondents, or 22.1%, said that they were unsure if they would be interested. Eighty-one percent ($n$ = 132) of respondents agreed with the statement, "If I was going to pursue a master's degree in occupational safety and health, I would be interested in a good distance learning program if it was available." The correlation between the two statements was significant.

*Program attributes necessary for students.* Research question 2 asked: "What are the necessary program attributes such as administrative policies, access to hardware and software, and instructional practices for working professional students to participate and learn effectively in occupational safety and health graduate courses delivered through distance education?"

The student audience for this program is comprised of working safety and health professionals. Results from the Safety Professional Distance Education Survey indicated that the mean age for those interested was 42 years and that 88.5% were male, 90.8% were white, and they worked on average no more than 50 hours a week. Only 13.8% of those responding that they were interested in such a degree program worked more than 50 hours per week. Another area affecting time available for pursuing a degree is traveling, and 56.0% of those interested said they traveled 1 to 6 days per month. The average number of days spent traveling per month was 5.3 for all respondents and 5.6 for those who indicated they were interested in a distance education program.

Even though it may seem to be the antithesis of what distance education is supposed to be about, it may be necessary to have students come to a central location in order to meet necessary hands-on requirements. With this in mind, survey questions were asked to gather information about coming to campus. The first question asked, "If there was a requirement to travel one time 600 miles, for 1 to 2 weeks' duration, to complete your degree would you still be interested in the [graduate safety and health] program?" Of those interested in pursuing a graduate degree by means of distance education, 64 or 73.6% said yes. The second question, "If there was a requirement to travel at least 600 miles to campus as part of the degree requirements what would be the maximum number of times you would be willing to do this?," had four response choices ranging from one to four times. Responses indicated that a shorter period of time was preferred, with one time (45, or 52.3%) and two times (29, or 33.7%) accounting for 86.0% of the responses. The third question asked, "If you were required to travel to campus to accomplish certain degree requirements that could not be done via distance learning what would be the most time that you could reasonably stay at one time?" Responses were either 1 week (73, or 84.9%) or 2 weeks (13, or 15.1%). In summary, it appears that potential students are reluctant but willing to travel to campus to complete specific degree requirements. However, if necessary, such travel is preferably only one time and no more than two times for the entire degree program and for no more than 1 week at a time.

Potential students want a program that is recognized as being of high quality. This is evident in the comments made in the open-ended questions as well as the responses that indicated that 97.6% of respondents thought it was important that the program be accredited.

Communication appears to be very important to potential students. Those who believed it is important to be able to communicate with the instructor totaled 93.0% of respondents. Connected with this result is the finding that 91.9% of respondents thought it is important for the instructor to have telephone office hours. Additionally, 78.0% of respondents indicated that it is important that the instructor respond to e-mail the same

day it is sent. Students were asked to indicate by ranking from 1 to 5 their preferred method of communication with instructors. The composite rankings, in order, were e-mail, phone, fax, mail, and in person. Confirming this preference for e-mail were questions that indicated a high level of comfort with using e-mail to communicate (91.9%) and with an e-mail-based course (87.3%).

Findings indicated that a slight majority (53.5%) of respondents believe it is important to meet with faculty at least once in order to get to know them; however, these potential students are unsure of the importance of meeting fellow students for peer support (Important = 19.8%; No opinion = 41.8%; Unimportant = 38.4%). Similar issues and responses are those indicating a lack of importance in interacting face-to-face with faculty (Important = 36.1%; No opinion = 36.0%; Unimportant = 27.9%) and interacting face-to-face with fellow students (Important = 24.1%; No opinion = 34.9%; Unimportant = 40.7%).

Respondents indicated that 86.1% believe it to be important that the course work relate to their job and that classes be flexible. Flexibility was considered important by 95.3% of the respondents, and affirmed by the number of remarks that stressed this point in responses to open-ended questions. Comments to open-ended questions indicated a particular need for flexibility regarding time because of all the other demands that professionals have on their time including work, travel, and families. Also related to flexibility, respondents indicated that they would prefer that the maximum amount of time necessary to complete course requirements would be 2 years or less (58.6%); 3 years was selected by 29.9% of respondents.

Respondents were asked questions regarding various methods of distance education teaching and were asked how comfortable or uncomfortable they were with these methods. The lowest response was for meeting at an Internet site at a specific time (62.1%). Meeting at a specific time would make a course much less flexible because of the expectation to be at a site and to spend a regular amount of time there, as is required by most classroom-based courses. Respondents (87.4%) indicated they would prefer evening classes between the hours of 6:00 p.m. to 10:00 p.m. if they were required to do course work at a particular time. The highest comfort level among respondents was with using Interactive computer programs (93.1%), videotape- and print-based courses (90.8%), and using an Internet site on their own schedule (88.4%).

The most important support services according to survey respondents are computer support (80.2%), bookstores (63.9%), library (62.8%), and registration (58.2%). Significantly less important were opportunities to interact with other students for peer support (34.4%), and student counseling services (29.1%). To properly serve distance students, a university will need to consider and address these students' specific needs.

*Faculty issues.* Research question 3 asked: "What human and technical issues (training, support, hardware, software, and technical knowledge) will be faced by faculty who will develop and deliver occupational safety and health graduate education programs using distance education?"

Faculty respondents to the Faculty Distance Education Survey were predominately male (82.1%), White (89.3%), and between 46 and 55 years of age (52.7%). A majority of these faculty (64.2%) possessed a doctoral degree, had 11 years or more of teaching experience at the college level (64.3%), were tenured (64.3%), and held one of the professor ranks (85.6%). Additionally, the majority (53.6%) were likely to have had some experience with distance education by having taught at least one course via a distance education means.

The respondents indicated that they were comfortable using e-mail (83%) and were generally comfortable with the concept of instructing via distance education (67%). There were 10 survey items that sought to identify how receptive to change the respondents were; results indicated that these faculty were receptive to change, with the lowest indication being 66.1% and ranging up to a 98.2% indication of being receptive to new ideas and concepts.

Respondents were asked questions regarding various methods of distance education and asked how comfortable or uncomfortable they were with these methods. Some methods were more favored than others. The highest level of comfort (66.1%) was identical for instruction and lessons being sent using e-mail and using preprogrammed interactive computer-based lessons. The next highest level of comfort (62.5%) was indicated for students being required to go to an Internet site at a specific time once a week for interaction with the instructor and other students through video or audio communications and e-mail, and requiring students to go to an Internet site once a week at a time of their choosing and spending about 2 to 3 hours reviewing instructor lectures through video or audio communications. Of the choices given, these two methods are most similar to traditional classroom teaching methods.

The other choices, regarding methods of distance education, in order of preference were videotape- and print-based courses (60%), videotape-based courses (58.9%), Internet-based video courses (53.5%), mail correspondence courses (51.8%), and Internet-based audio courses (42.9%). The two methods that garnered the highest level of discomfort among faculty respondents were Internet-based audio courses (44.7% uncomfortable; 12.5% undecided) and correspondence courses where everything is written and assignments are sent back and forth using the mail (44.6% uncomfortable; 3.6% undecided).

Six questions on the faculty survey addressed how concerned the faculty were about distance education. Responses indicated that faculty had some knowledge about distance education courses (76.8%), and that they are concerned about how distance education is going to affect them personally (85.7%) and what their institution is going to want from them (76.4%). These responses indicate that the respondents are concerned about distance education and how it will affect them.

Faculty indicated that they believe that distance education is important to their department (76.8%), their university (82.2%), and to the future of education (85.7%); they also believe it can expand learning opportunities (94.7%). Responses to open-ended

questions also indicated that faculty felt that distance education has advantages for non-traditional students and has the potential to increase enrollment. Additionally, respondents indicated that they would be interested in teaching by distance education (75.5%); this was further reinforced by 83.5% indicating that their attitude toward distance education is positive and by faculty responses made to the open-ended questions.

Through the open-ended questions respondents also indicated their concerns about distance education. These concerns included lack of interaction with students, inadequate time to develop courses and teach, inadequate technical and administrative support, concern about course quality, concern about appropriate compensation, concern about university administration support and commitment, and pedagogy.

## *Conclusions and Discussion*

### *Students*

Faculty and students comprise the two of the three groups that are most directly involved in an individual's education and have the most direct interface with each other. Thompson and McGrath (1999) stated that the infrastructure to support distance education must be as solid as that supporting resident instruction. This means that the third group, university administration, needs to establish policies and practices that enable and encourage faculty and students to maximize the educational experience and to be especially careful that policies and practices do not get in the way of education.

A majority of the working safety and health professionals who responded expressed an interest in a graduate-level degree program in safety and health taught via distance education. Thus, it can be concluded that a potential demand exists for such a program. Such interest by working adults in distance education-based programs was supported by Gibson's (1992) finding that adults tend to choose educational options delivered via a means that allows them to minimize disruption of their lives including their employment and family.

The single largest group (slightly over one third) within those interested in a graduate program has their bachelor's degree in a safety-related field. These individuals are well-positioned to enroll directly in an accredited graduate curriculum. A little over one third have degrees in other fields such as industrial technology, engineering, and various sciences. These individuals would most likely have to take a few undergraduate courses before being admitted into a graduate safety and health program. The third group was a little under one third of those interested, and they had degrees in various business and humanistic studies. These individuals would likely have extensive undergraduate requirements to meet before they could pursue graduate study in an accredited safety and health program. Universities setting up distance education programs will need to understand the wide variance in educational background of those working in the safety and health field, be very clear about requirements in any promotional materials, and have formal, justifiable evaluation systems in place. This is critical for students and for the reputation and quality of the program as well as being important to ensure meeting

accreditation requirements. Additionally, entry requirements may require students to take prerequisite courses, perhaps from other institutions. This raises the issue of quality of these courses and what will be accepted and what will not. Formal open procedures and policies will need to be established to avoid problems.

Respondents indicated that program flexibility is very important to them. Although the responses indicated that flexibility meant different things to different people, a common word used with flexibility was *time*. To illustrate, respondents indicated that job requirements necessitate working more than 40 hours, although few exceeded 50 hours per week. Traveling for business is also a common necessity, requiring on average 1 to 6 days per month. Those interested in pursuing a graduate degree are very concerned that the program be flexible from a time perspective. O'Malley and McCraw (1999) pointed out that a major advantage indicated by students who have taken distance education courses is the flexibility it gives them. Gibson (1992) indicated that adult learners prefer to work on their own, at their own pace, and to not be overloaded because of their other obligations. The respondents in the current study appear to fit this profile in their desire for flexibility. Schrum and Benson (2000), in a study of a MBA distance education-based program, discovered that the working students in the program indicated that they struggled to balance the time required in their course work with their professional and personal lives and that this caused them the most stress. To provide flexibility, it will require a different mind set from a course administration point of view. Deadlines may need to be more flexible and will have to be established well in advance and made very clear. Another aspect of time is the time required to complete the program. Students would like to complete degree requirements within 2 years. Strict long-term planning will be necessary to lay out the curriculum so that this can be possible.

Although the majority of respondents indicated they had access to a college library, a safety and health curriculum requires access to books and references that are not found in typical college libraries. The library at the host institution will need to have multiple copies of key material and establish access and loan procedures that meet the needs of distance students. Much of this material could be made available through the Internet, but access to appropriate databases would need to be established. This will require close coordination between faculty and library personnel to ensure that appropriate material is available.

Respondents overwhelmingly indicated that they have access to computers, the Internet, fax, and e-mail. Clear and definite information will have to be provided as to what technology is expected to be used by students, and faculty will need to adhere to those standards. In some cases, students will need to purchase equipment or software and they should not be expected to purchase additional equipment just because one faculty member decides that he or she wants some additional capability.

It may be necessary for students to come to campus or other central location in order to accomplish hands-on requirements such as those that are usually performed in labs. Potential students indicated that they are willing to travel to fulfill this need, but this travel should be as little as possible, ideally only once for the entire degree and absolutely

no more than twice. Additionally, when traveling they want to stay away from home no more than 1 week. Requiring students to travel defeats much of the purpose of a distance education program from a student's point of view. Ideally, the program should be set up to require students to travel no more than once and for only 1 week to meet all on-campus requirements. This will require a careful review of necessary lab requirements and an efficient use of time to meet them.

Potential students indicated that they want a program that is recognized as being of high quality. They also indicated that it was very important that the program be accredited. These results indicate that an institution that already has a conventional accredited graduate program that is widely recognized within the field as being of high quality, would be strongly considered by individuals who want a graduate degree, as long as the distance education program is perceived as being of equal quality. Such an institution would have a major marketing advantage over other institutions who were not accredited or did not have as strong a reputation. Efforts should be made during program development and throughout implementation to not sacrifice quality.

Quality is hard to define and much of what is perceived as quality is in the eye of the beholder. Because of this, program administrators and faculty should be sensitive to the comments and opinions of potential and actual students in order to ensure that the program's high quality is being received as it is intended. That quality can be a major issue with potential students was confirmed by a study performed by Perdue and Valentine (2000) of certified public accountants that showed this group's concern about quality was actually hindering pursuit of distance education by this group. Quality issues, real or perceived, must be properly addressed.

Communication is very important and is extra critical in a distance education program where face-to-face communication is not possible. Nixon and Leftwich (1999) found that constant and timely communication is crucial and that students have a need to know that someone is listening and that they have been "heard." Students want instructors to have telephone office hours and to respond quickly to e-mail. E-mail followed by phone and fax were the preferred means of communication; procedures to handle what could become a high volume of communication will need to be established and followed.

Potential students indicated that they would like to meet faculty at least one time. Being able to "put a face" to a name and to a communication could be an important component of quality and enhanced communications. One example of what could be done is to put pictures and biographies on a web site where students could access them. Another method that might be used is to bring all students starting the program to campus for approximately 1 week to meet faculty and other key personnel and to fulfill hands-on requirements as previously discussed. This would also allow the students to meet each other and should enhance attachment to the department and the university.

The potential students who responded in this study did not reject any of the principal methods of conducting classes by means of distance education; however, they thought less of synchronous courses. Emphasis should be placed on conducting courses that

allow maximum flexibility, including varying work schedules and travel. Asynchronous as opposed to synchronous courses would better meet this requirement. If synchronous courses are conducted, potential students prefer evening hours.

Potential student respondents in this study felt that the most important student support services were computer support, bookstore, library, and registration. Counseling and peer interaction were much less important. It will be important to consider the different needs of distance students from on-campus students. Anything that the student will need to do must be able to be done easily without coming to campus. To address this need, policies and procedures may have to be changed, hours modified, and services made available via the Internet and other means. Additionally, the importance of various support services will likely be different for distance than for campus-based students. For example, computer help desks may need to be open longer hours and have more people assigned to them or the bookstore may need to hire more personnel, perhaps even install a Internet-based purchase system or toll-free number ordering system to handle book requests.

*Faculty*

Faculty demographics in this study followed the safety professionals' demographics in that the respondents were predominately male, White, and 46 to 55 years of age. These faculty respondents tended to hold tenured positions at one of the professor (assistance, associate, or full) ranks, and a slight majority had taught at least one course via distance education. The faculty indicated that they were generally comfortable with technology and with the concept of distance education and that they were generally receptive to change and to new ideas and concepts. This being said, that does not mean that faculty were totally comfortable or understood distance education methods and requirements. Two of the higher rated preferred methods of teaching were those requiring students to go to an Internet site at a specific time once a week for interaction with the instructor and other students through video or audio communications and requiring students to go to an Internet site once a week at a time of their choosing and spend about 2 to 3 hours reviewing instructor lectures through video or audio communications. It is not surprising that these methods would be more comfortable for many faculty; they are just adaptations of the typical traditional classroom. Williamson, Bernhard, and Chamberlin (2000) found that faculty need to use appropriate pedagogy in consideration of the results desired and the technology available, and to not just try to modify a classroom approach. Faculty will require training and support to be able to effect this change.

Faculty respondents in this study indicated that they had some knowledge about distance education and were concerned about how distance education will affect them. They believed that distance education is important to their department, their university, and to the future of education. They also felt that distance education has the capability of expanding learning opportunities, especially for nontraditional students, and has the potential to increase enrollment. Faculty, whether they had taught by distance education means before or not, indicated that they had a generally positive attitude toward distance education and would be interested in teaching by via distance education. Those who had previously taught a course by means of distance education were more positive about

teaching another course than were those who had not taught via distance education means. This is consistent with Fuller, Norby, Pearce, and Strand's (2000) research, which found that most faculty who had previously taught an on-line course were willing to do so again.

Faculty respondents in this study also had concerns about distance education. These concerns included lack of interaction with students, inadequate time to develop courses and teach, inadequate technical and administrative support, concern about course quality, concern about appropriate compensation, concern about university administration support and commitment, and pedagogy concerns. These types of concerns are common with faculty; similar concerns have been found in other studies (Botsch & Botsch, 2000; Rockwell, Schauer, Fritz, & Marx, 1999; Schifter, 2000).

*Recommendations*

Based upon the findings of this study, the following recommendations are made for occupational safety and health educators who want to develop and deliver graduate education through distance education:

1. Institutions need to be very clear and up-front in marketing and promotion about what is expected of students and what distance education is. Too many students have an unrealistic expectation of distance education, believing it will be easy or underestimating time requirements for completion.

2. Technology should never get in the way of instruction. Students will need to be trained in available technology as well as be provided quality computer support so that they can focus on the instruction and not on the technology. It may be necessary to assess individual students' level of technological knowledge and train them where they are deficient. Additionally, an instructor will likely be the first person a students contacts when experiencing a problem. Instructors must be trained on common problems and solutions in order to help students.

3. Considering the needs of distance students must be a primary concern. Care should be taken to not try to just plug the distance education program into existing administrative policies and procedures. Entry requirements and academic standards should be the same for distance and on-campus students. Policies and procedures will need to be established for acceptance of transfer credit and for evaluation of previous work.

4. Faculty should be encouraged to participate in delivering courses via means of distance education. To accomplish this, faculty need to be given training in pedagogy, technology, and communications. Faculty need to be sufficiently trained so that they have the same comfort level with this method of instruction as they do with more familiar, traditional classroom instruction methods. Technical and instructional support personnel need to be readily available to

work with the faculty and to support course development. It also would be helpful to establish faculty mentorship efforts, so that those faculty who have experience with distance education can assist those who do not. Faculty members' distance education efforts need to be recognized by university administration in their promotion and tenure decisions as well as in administrative decision regarding faculty financial rewards, release time, and honor systems.

5. Finally, further research needs to be focused on specific technologies and pedagogical issues in distance education in order to develop best practices for course delivery.

## REFERENCES


Botsch, C., & Botsch, R. (2000, July/August). Gaining faculty acceptance for online courses at a traditional college. *The Technology Source*. [On-line]. http://horizon.unc.edu/TS/cases/2000-07.asp

Connick, G. P. (1997). Issues and trends to take us into the twenty-first century. In T. E. Cyrs (Ed.), *Teaching and learning at a distance: What it takes to effectively design, deliver, and evaluate programs* (pp. 7-12). San Francisco: Jossey-Bass.

Fuller, D., Norby, R. F., Pearce, K., & Strand, S. (2000). Internet teaching by style: Profiling the on-line professor. *Educational Technology and Society, 3*(2), 71-85.

Gibson, C. (1992). Distance education: On focus and future. *Adult Education Quarterly, 42*(3), 167-179.

Nixon, M. A., & Leftwich, B. R. (1999). Leading the pack: From an on-campus program to Internet-based delivery. *The Technology Source*. [On-line]. http://horizon.unc.edu/TS/cases/1999-11a.asp

O?Malley, J., & McCraw, H.. (1999). Students perceptions of distance learning, online learning and the traditional classroom. *Online Journal of Distance Learning Administration, 2*(4). [On-line]. http://www.westga.edi/~distance/omalley24.html

Perdue, K. J., & Valentine, T. (2000). Deterrents to participation in web-based continuing professional education. *American Journal of Distance Education, 14*(1), 7-26.

Rockwell, S. K., Schauer, J., Fritz, S. M., & Marx, D. B. (1999). Incentives and obstacles influencing higher education faculty and administrators to teach via distance. *Online Journal of Distance Learning Administration, 2*(4). [On-line]. http://www.westga.edu/~distance/rockwell24.html

Schifter, C. C. (2000). Faculty participation in asynchronous learning networks: A case study of motivating and inhibiting factors. *Journal of Asynchronous Learning Networks, 4*(1), 15-22.

Schrum, L., & Benson, A. (2000). Online professional education: A case study of an MBA program through its transition to an online model. *Journal of Asynchronous Learning Networks, 4*(1), 52-61.

Thompson, M. M., & McGrath, J. W. (1999). Using ALNs to support a complete educational experience. *Journal of Asynchronous Learning Networks, 3*(2), 54-63.

Williamson, C., Bernhard, J. T., & Chamberlin, K. (2000). Perspective on an Internet-based synchronous distance learning experience. *Journal of Engineering Education, 89*(1), 53-61.